Design Course

Elements of Form

Exploration of 2D and 3D forms

by
Mr. Ravishankar and Mr. Nilesh S. Misal
NID, Bengaluru

Source:
https://www.dsource.in/course/elements-form

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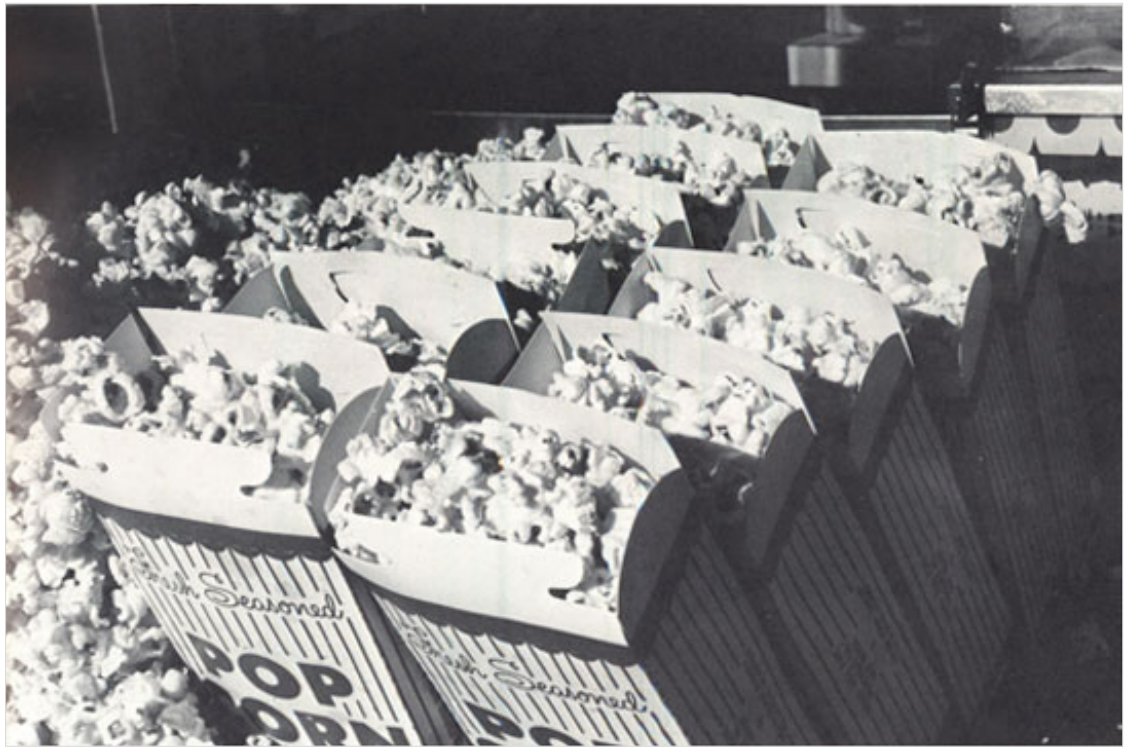
Introduction

We live in the world of forms and shapes, and all the creatures in the universe is filled with infinite number of forms and shapes in natural and man-made objects. Forms and shapes always refer to visual appearance and they are categorized into basic shapes named geometric and organic. Generally man produces geometric shapes whereas nature has wide range of geometric and diversified free -flowing organic shapes which are precise and irregular contours or edges with a feeling of growth and movement.

Humans can use senses to the fullest and can readily assess most of the things he perceives. A bagful of popcorn during the movie touches on these five senses for enjoyment, sight/vision and smell probably induce to buy looking at first, touching becomes the delivery system from package to mouth, tasting is obvious reward and sound is the by-product of crunching the popcorn. [1] Most of the time our opinion about visual encounters are made with a primary emphasis on sight, looking at the above shapes and forms may give us innumerable clues to the nature of the object, how it functions, how its surface would feel, what it would taste like if edible, and how pleasing it is to look at. Incisive looking sharpens our experience and heightens our visual pleasure.



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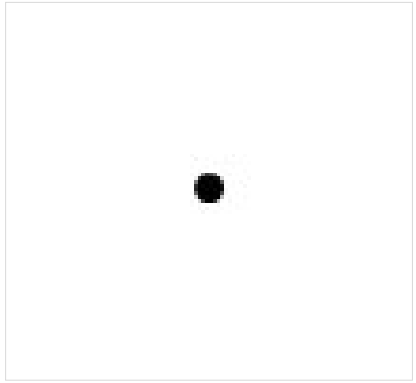
Form/ Shape:
Form is the point of contact between mass and space. [2] An element of form is a method of communicating the outer form through a product which invites to use. It emphasizes on the outer shape/form of the product which communicates to the user. Elements-of-form is a cognitive exercise which needs to understand the various aspects of extracting the elements like form/shape, line and texture. This process happens in the form of 2 dimensional (2D) and 3 dimensional (3D).

The form/ shape is an important aspect for any visual appealing product. A good designed product will always have good outer shape with unique form however it depends on the designer and the product, for a products like consumer electronics the outer form may not have a good shape except the manipulation of radius in the corners, but an appropriate combination of elements, size and radius makes it a good form.

Generally outer form/ shape applies to consumer products and can be classified in to form oriented and function oriented, function oriented products may not have a good outer shape/form however an effort is always made to create an appropriate form.

To understand better, a shape is defined as an area that stands out from the space next to or around it due to a defined or implied boundary where as a form is any three dimensional object. Form can be measured, from top to bottom (height), side to side (width), and from front to back (depth). [3]

Primary elements of form are the point, the line, the plane and the volume.



The **Point** indicates a position in space.

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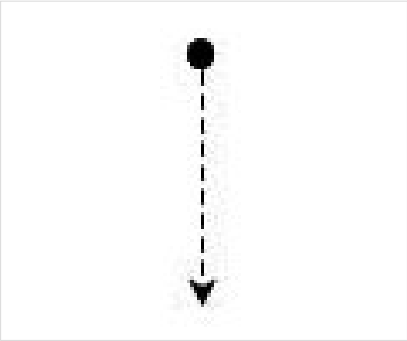
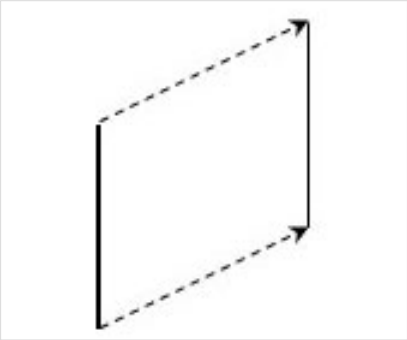
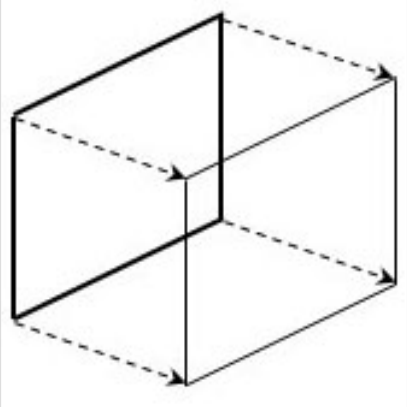


A point extended becomes a **Line** with (1-D) properties of length, direction, position.



A line extended becomes a **Plane** with (2-D) properties of length and width, shape surface,orientation, position.



A plane extended becomes a **Volume** with (3-D) properties of length width and depth form and space surface, orientation, position.

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This is a fundamental course for individuals creative growth happens in 3 stages which helps to develop sensitivity and coordination between mind and hand which ignites the imagination. This comprehensive course is structured for two disciplines Design for Retail Experience (DRE) and Design for Digital Experience (DDE) taught by two experienced faculties. Students from DRE are taught about basic elements of surfaces and understanding space where as students from DDE taught about understanding and developing forms about consumer products.

Aim of the course:
Aim of the course is to introduce the students to explore and understand the basic elements like line, shape, form and texture and to work on creating new forms using elements in 2dimension (2D) and 3dimension (3D). Further leads to form abstractions through nature inspiration in 3D. Studio assignments help students to gain hand-on experience to develop forms.

The course exploration in 3 stages:
- Elements of Form I
- Elements of Form II
- Elements of Form III

The course has diversified in stage II and III for respective disciplines with hands on exercise.
The duration of course is 2 to 3 weeks and the assignment is an individual work.

Bibliography:
[1] *PORTER ALBERT (1974) Elements of Design SHAPE AND FORM. Davis Publications, INC. Worcester, Massachusetts, U.S.A.*

[2] *CHING FRANCIS (2007) ARCHITECTURE Form, Space, and Order, Third Edition, Published by John Wiley & Sons, Inc., Hoboken, New Jersey, U. S. A.*

[3] *URL: CINDY KOVALIK, Ph.D. and Peggy King, M.Ed. Visual Literacy.*

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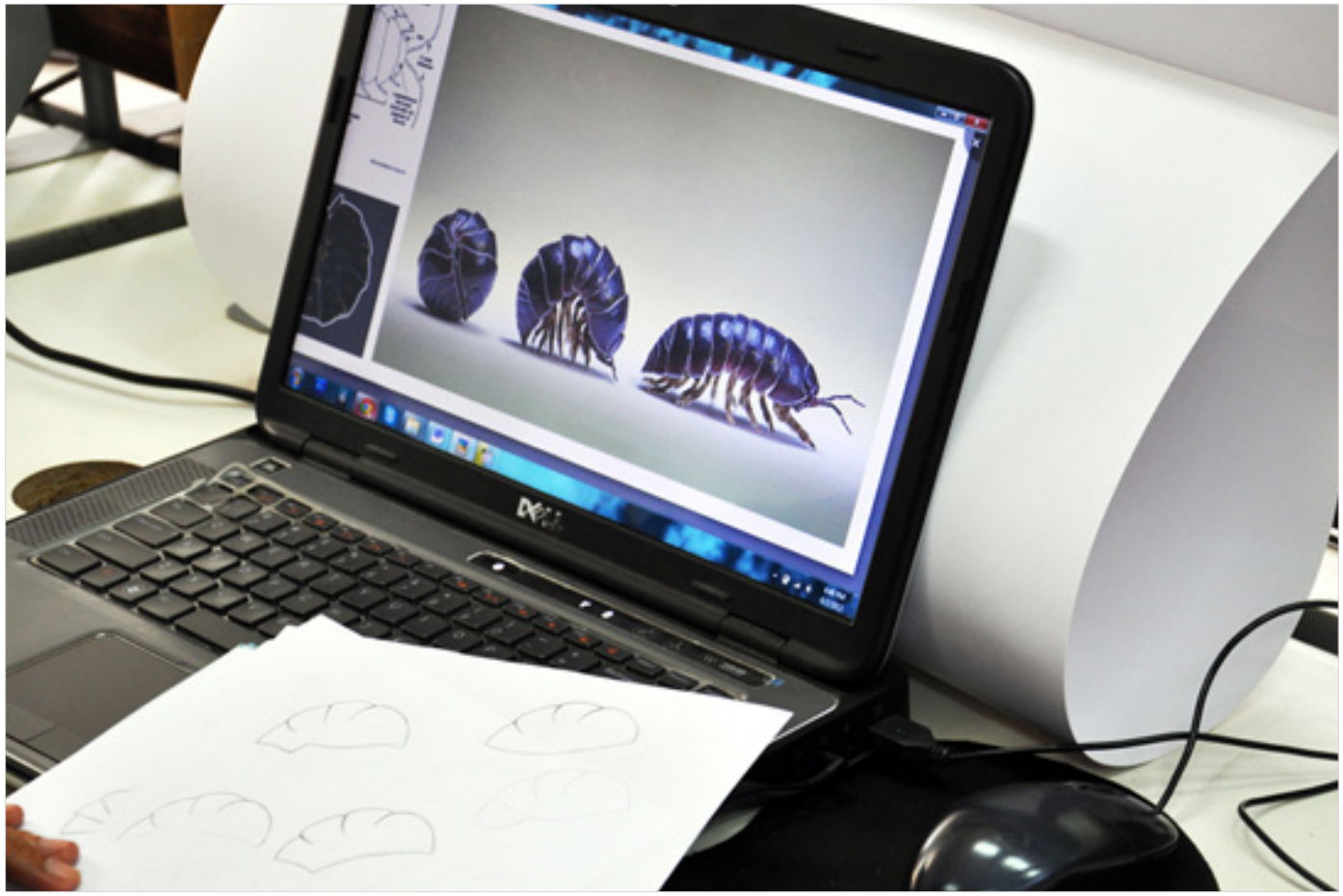

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Elements of Form - I

First stage of Elements-of-Form pertains to extraction of elements like line, shape, texture to create a unique form/shape in 2 dimensional forms using Gestalt principles and manipulation of characters like radius.

The skills and techniques provided to the students are as follows:
• Practice and training of the visual system (eye) to see and observe things in detail and reproduce and externalize the image through dreaming.
• Through different dreaming tasks students are taught the physical aspects of learning to draw for the purpose of designing.

In this stage students also develop a sense of geometry like:
• Simple geometric forms, seeing the inner geometry of forms, sense of perspective.
• Dreaming of objects, structures, spaces, natural forms and environment and visual analysis of objects.

Methodology:
With the help of 2D drawings, students would work on abstractions, composition and manipulation of elements to create new forms.

Class Assignment:
• To develop to 2D from the forms by selecting any shapes.
• To develop further into a useful 2D shapes by manipulating and transforming the external shapes.
• To explore more 2D shapes.

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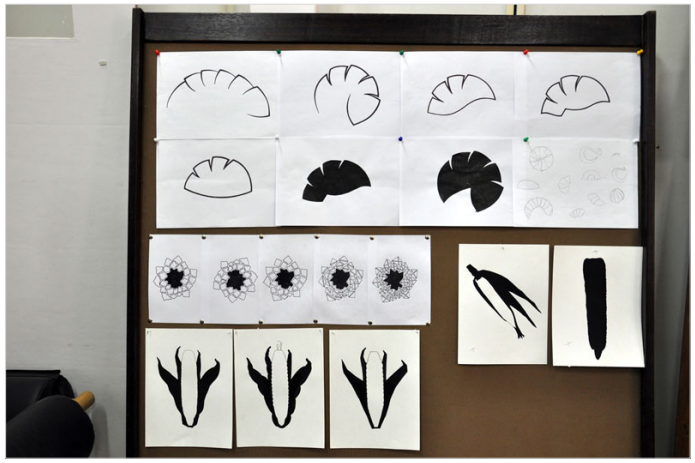

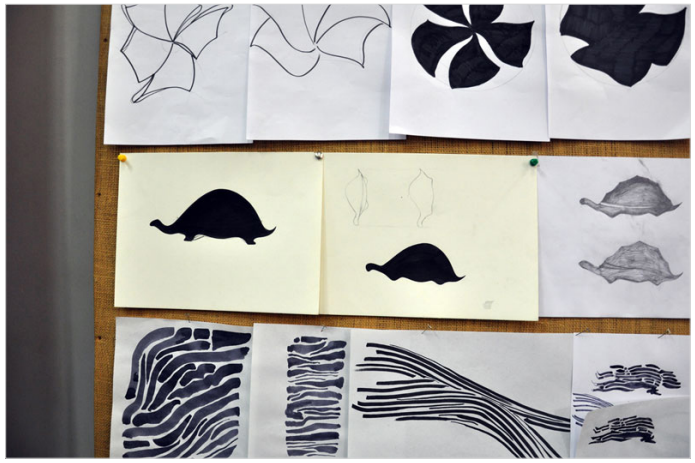

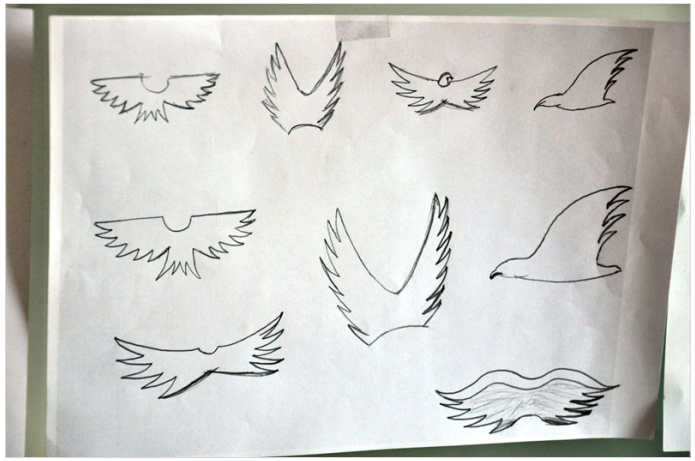

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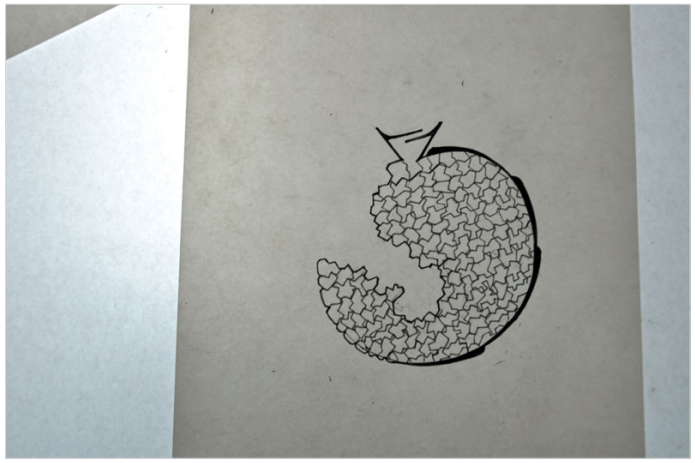

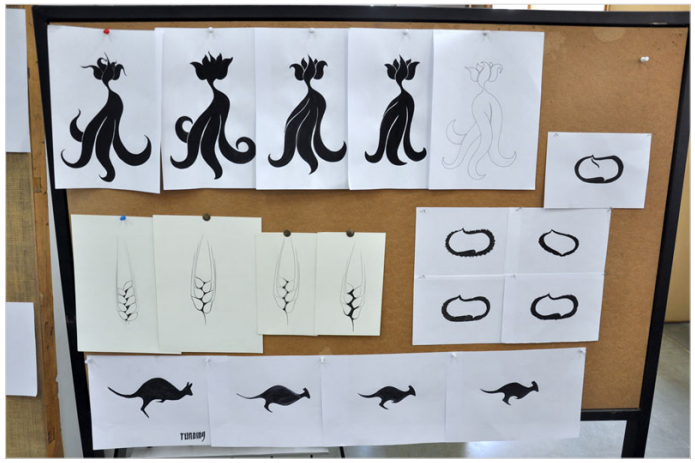

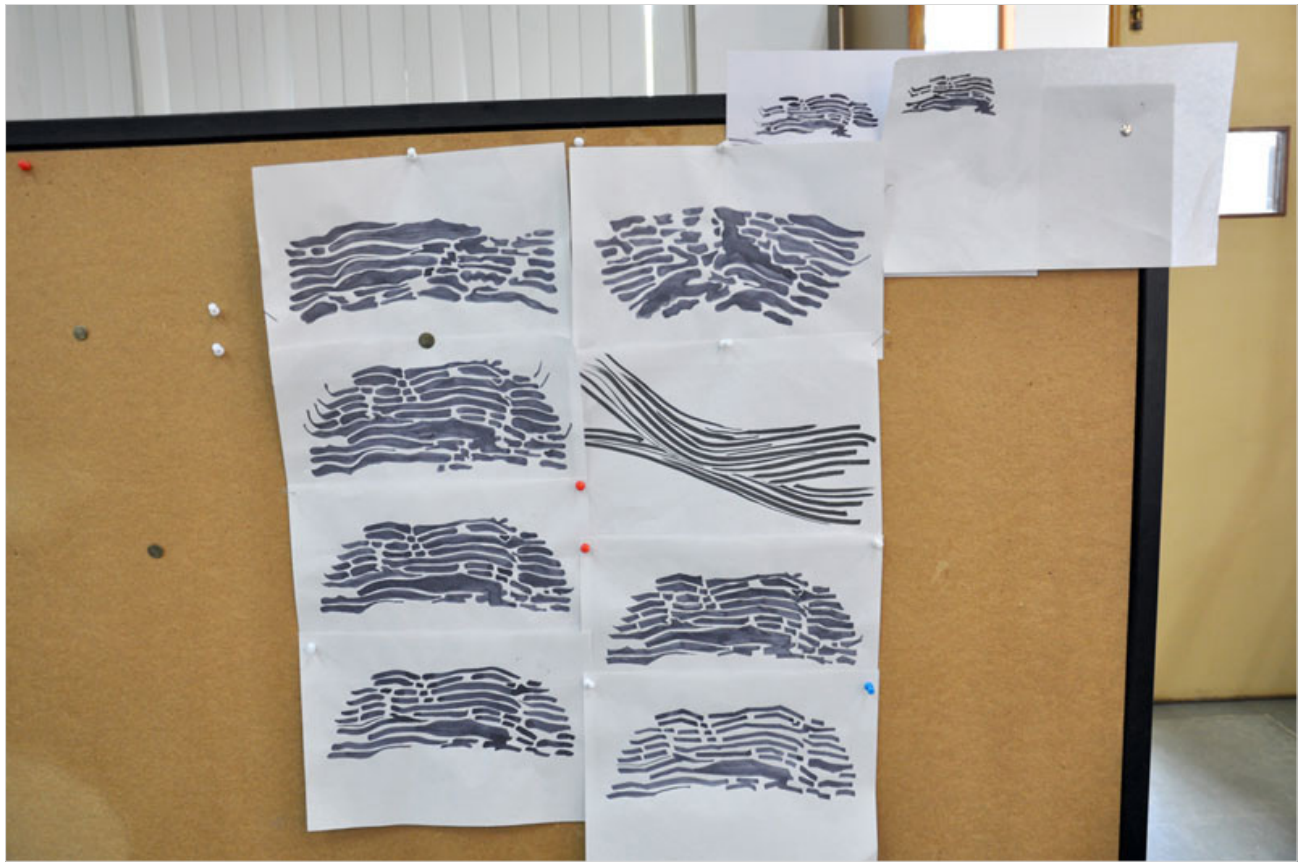

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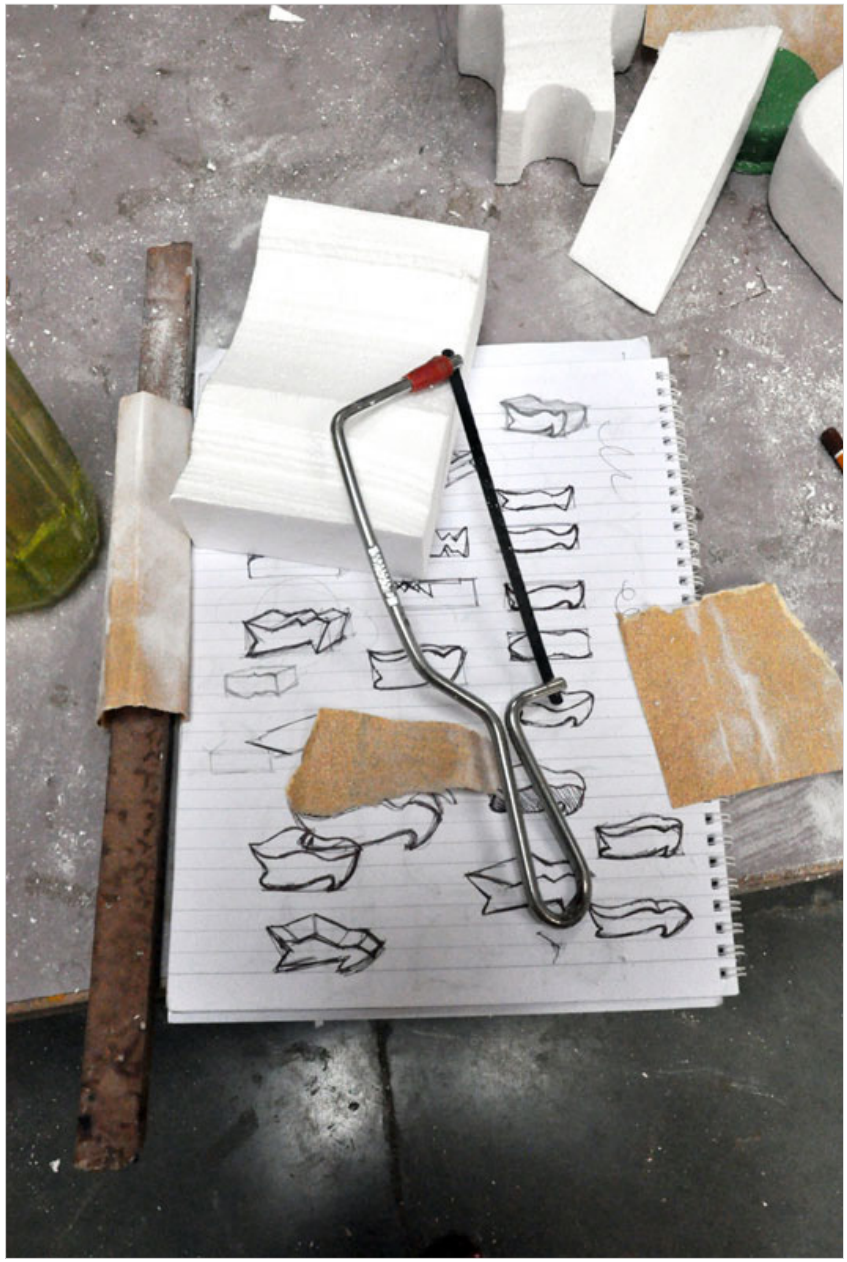

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Elements of Form - II

Extraction of forms/ shapes using elements line, shape, texture to create a unique form/ shape in 3dimensional forms. In this stage transformation from 2D to 3D forms are created to perform certain tasks like Pick and Speak/ Pick and pour/ pick and play/ pick and hear etc. keeping user in mind. Transformation of form between 2 geometric shapes also part of this stage.

Methodology:
2D drawings further developed to 3D based on previous stage to get innovative 3D forms. The process involves much iteration for better outcome. Design for Retail Experience (DRE) students would work in the direction of developing surfaces and 3D forms whereas Design for Digital Experience (DDE) students work in the direction of developing forms pertaining to consumer products

Class Assignment DRE students:
- To develop to 3D from the forms developed in previous stage.
- To develop further into a useful 3D forms and surfaces considering retail space, scenarios on shopping malls.
- To develop 3D surfaces using a cardboard, thread and nails (as shown in images).
- To develop the final form using Thermocol and Plaster of Paris (POP) material with the help of studio tools like file and emery paper.

Class Assignment DDE students:
- To develop to 3D from the forms developed in previous stage.
- To develop further into a useful 3D forms and surfaces with an expression of pick and talk, pick and pour, pick and play etc. considering the human interaction.
- To develop the final form using Thermocol and material with the help of studio tools like file and emery paper.

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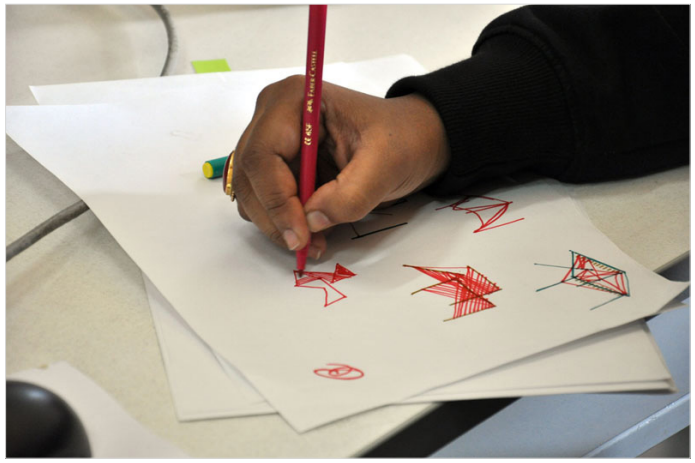

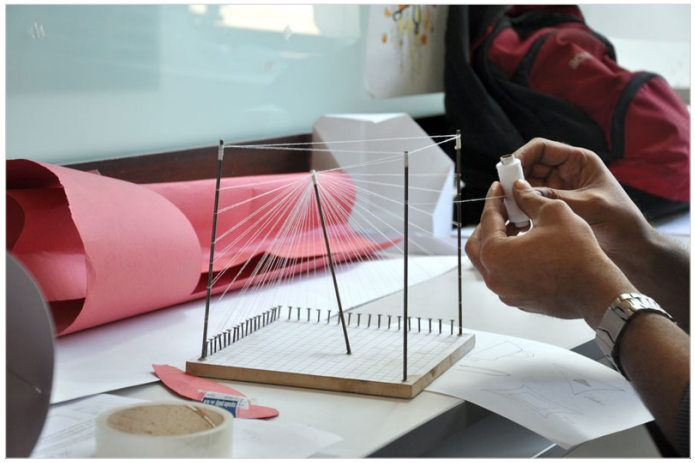

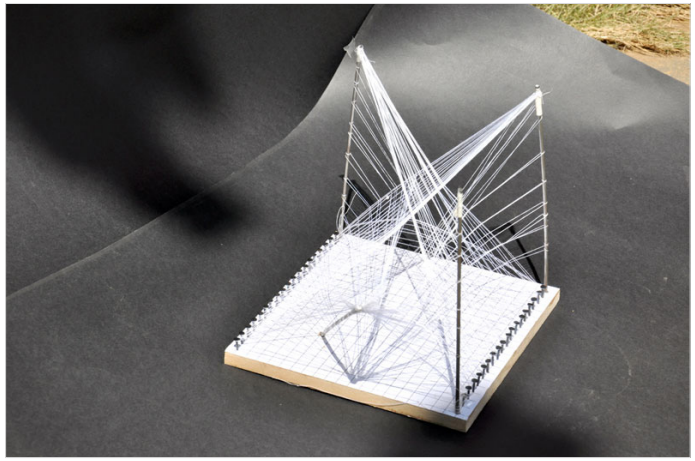

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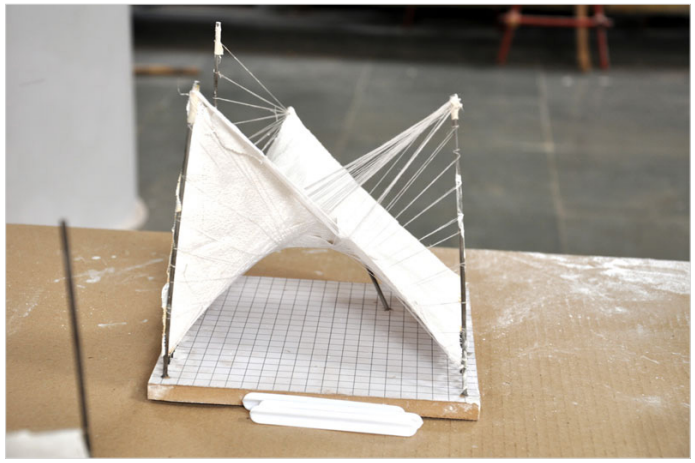

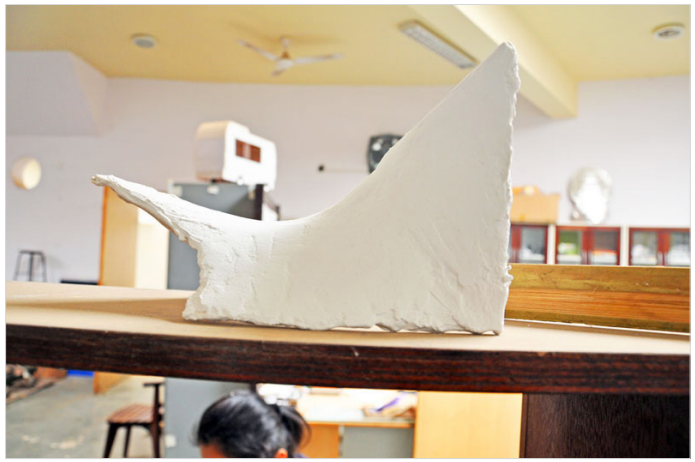

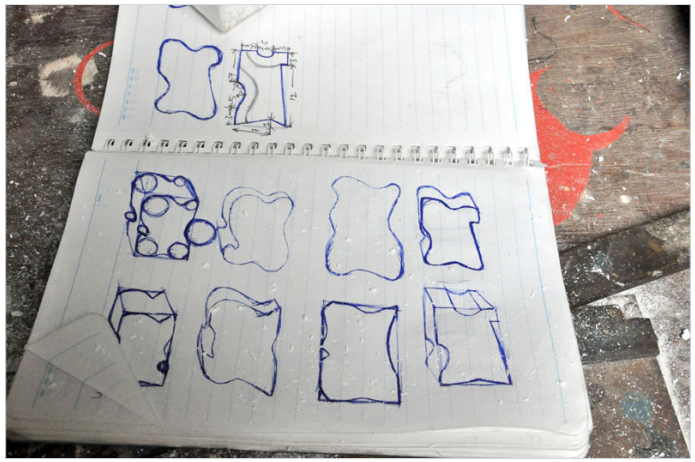

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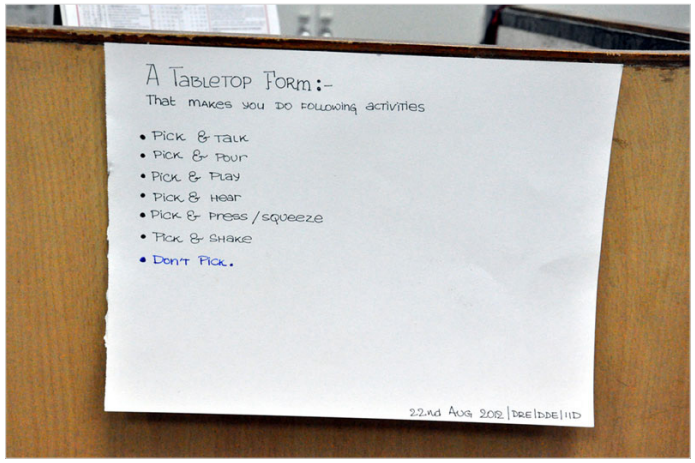
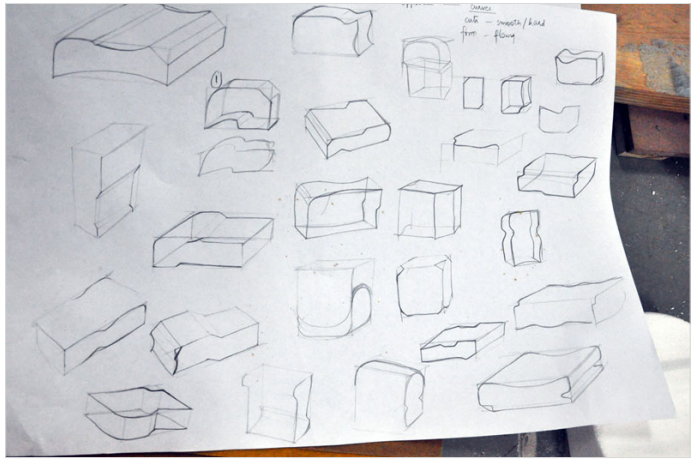

A Tabletop Form:-
That makes you do following activities
• Pick & Talk
• Pick & Pour
• Pick & Play
• Pick & Hear
• Pick & Press / Squeeze
• Pick & Shake
• Don't Pick.
22nd Aug 2012 | DRE | DDE | IID



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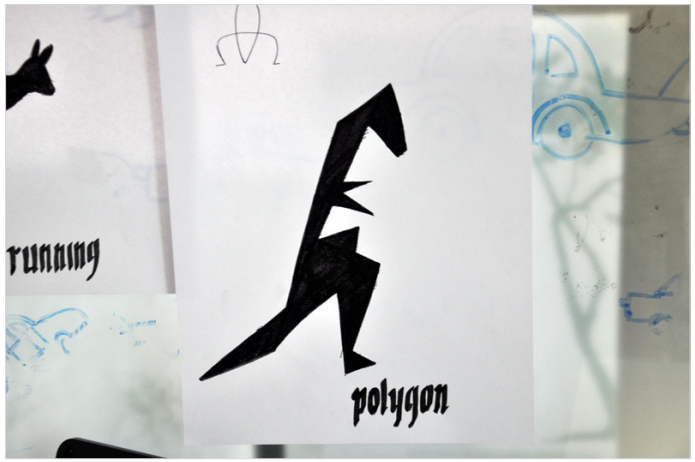
Elements of Form - III

Extraction of forms/shapes from nature inspiration, students individually select any 3 types from nature may be an animal, a tree and an insect, which inspires. The selection from nature depends on the type of product. This stage is a continuation from 2D and 3D where a useful 3D form is created.

Methodology:
The inspiration is drawn from nature by selecting a bird, insect or a tree something that inspires to explore different forms. Based on the application of form the transformation of selected from nature is manipulated.

Class Assignment:
- To select any 3 types from nature may be an animal, a tree or an insect, which inspires.
- To get inspired of form selected from nature, to develop different forms by manipulating, transforming the external shape from 2D to 3D.
- To develop further into a useful 3D forms and surfaces.
- To develop the final form using thermocol material with the help of studio tools like file and emery paper.



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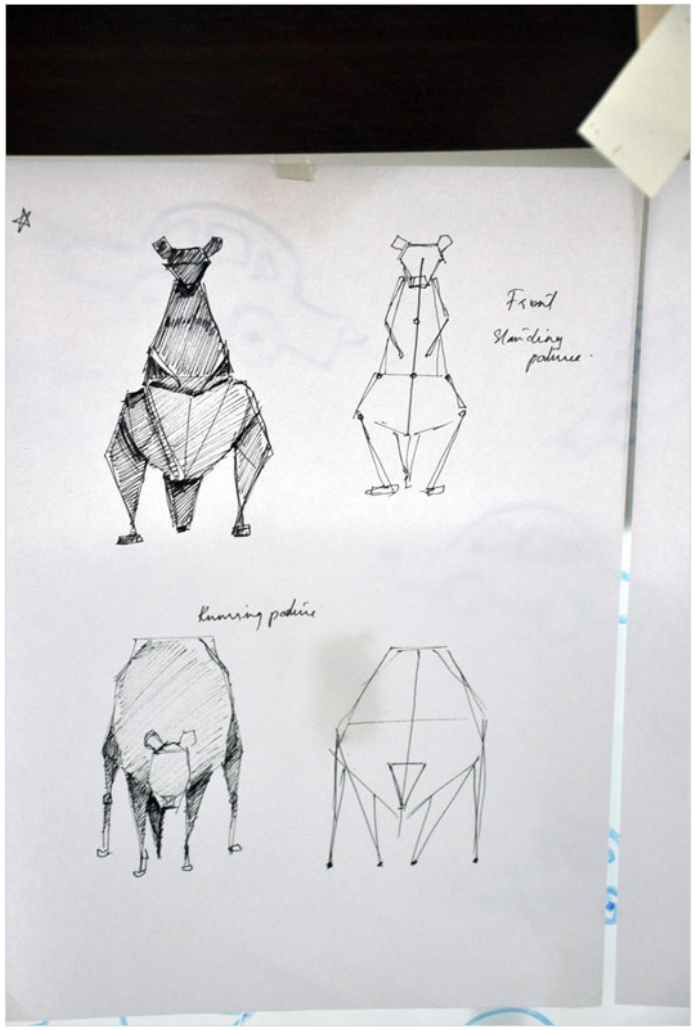

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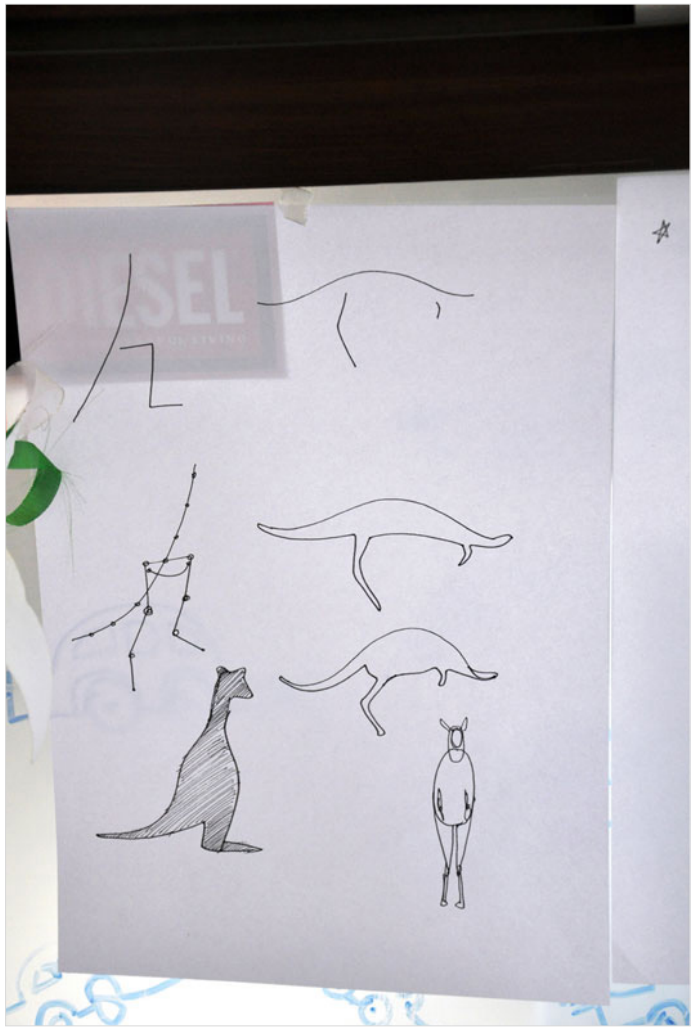

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